

VADDEL MS2000 VEHICLE SECURITY SYSTEM OWNER'S MARUAL

ongratulations on your purchase of this Ungo System. Please read this manual thoroughly to familiarize yourself with your system's components and operation. Discuss any questions you might have with your installing dealer.

Record the serial number of your Ungo system and keep all dealer records and receipts. Be sure to discuss the installation with the dealer so that you understand the specifics of the installation in your vehicle.

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Note: Certain features described in this manual may require additional parts and/or labor. Also, some features of the Ungo MS2000 system have selectable options that must be activated or programmed during the system's installation. These items will be identified in the following sections. Your Authorized Ungo Dealer will be happy to discuss these features with you and help you design your system to meet your needs.

About Your Ungo Security System

Ungo Security Systems are state-of-the-art vehicle protection systems equipped with features designed to:

- p Deter potential intrusions to the vehicle by continually flashing the system LED status indicator while the system is Armed, giving a visual indication to any passer-by that the vehicle is equipped with a security system.
- p Detect intrusions to the vehicle, including impacts to the vehicle's body, and opening of the doors, trunk and hood.
- p *Alert* those in the vicinity of the vehicle by sounding the system's siren and flashing the parking lights, and honking the horn*.
- p *Inform* the owner when the system has been triggered and specifically which zone was violated. The system will also inform the user of any defective zones that may be causing the system to function improperly.
- p **Protect** both you and the contents of your vehicle with features such as panic mode, dome light illumination*, and ignition controlled door locking*.
- * Optional Features

Each Ungo MS2000 System comes with:

- Main Unit the "brain" of the system.
- Two 3-Button Remote Transmitters
- 125dB Siren* Water resistant, high output siren that sounds when system is triggered. Also used to provide audible system status information.
- *As an option, your system can be configured to use your vehicle's horn instead of a siren for a more distinct and identifiable sound.
- Status LED red illuminated indicator that provides system status information.
- Dual Stage Electronic Shock Sensor detects impacts to the vehicle.
- Emergency Override / Valet Switch used to override the system in case the Remote Transmitters become lost or stolen. Also used to temporarily disable the system when the vehicle is being serviced or turned over to a parking attendant.

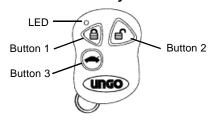
Options and Convenience Features

The advanced design of the Ungo system incorporates a number of optional inputs and outputs allowing you to create a customized security / convenience system by easily accommodating many optional features such as:

- Remote Door Locking
- Remote Window Control
- Remote Car Start
- Power Trunk / Hatch Release
- Glass Breakage Sensor
- Radar Sensor
- Back-up Battery Siren

Remote Transmitters

Remote Transmitter Layout



The Ungo MS2000 comes with 2 multi-function Remote Transmitters used to control nearly all of the system's features.

Each time a transmitter button is pressed, the LED will flash to indicate that a transmission is taking place.

Button 1 Arms the system. This Button also locks the doors when the system is in Valet Mode.

 ${\bf Button~2}$ Disarms the system. This Button also unlocks the doors when the system is in Valet Mode.

Button 3 Activates the system's Auxiliary Function 1, commonly used for trunk release. *Also used to arm / disarm the system silently.

Optional Driver Door Priority Feature*

This configuration adds the security of unlocking only the driver's door when the system is Disarmed. Pressing the Disarm button again will unlock all remaining doors.

Button 1 Arms the system. This Button also locks the doors when the system is in Valet Mode.

Button 2 Disarms the system and unlocks the driver's door. This Button also unlocks the doors when the system is in Valet Mode.

If the system is Armed, pressing Button 2 will Disarm the system and unlock the driver's door only.

If the system is Disarmed, pressing Button 2 will unlock all remaining doors.

If the system is in Valet and the doors are locked, pressing Button 2 will unlock the driver's door. Pressing Button 2 again will unlock all remaining doors.

*Extra parts and/or labor may be required to properly utilize this feature. See your Authorized Ungo Dealer for details.

Battery Replacement

Your Ungo Remote Transmitter uses a 12 volt alkaline battery, which will need to be replaced from time to time. Under normal conditions, the battery may last for up to a year before it needs replacement.

When your Remote Transmitter's battery is in need of replacement, you will notice a decrease in your system's operating range or a decrease in the brightness of the Transmitter's LED indicator.

To change the battery, remove the 2 screws at the back of the Transmitter and carefully separate the top and bottom halves of the Transmitter case.

Insert the new battery, making sure that the positive and negative terminals are positioned correctly and replace the cover.

Adding a New Transmitter into the System

The Ungo MS2000 has the ability to recognize up to 4 individual Remote Transmitters. If the vehicle is used by multiple drivers, each can have their own Remote Transmitter.

To add a Remote Transmitter:

- 1. Turn on the ignition.
- 2. Press and hold the Override switch.
 - · The status LED will turn on red.
 - The siren will chirp 5 times.
- 3. Have all desired transmitters ready and follow the steps below for each transmitter.

For remote Arming **with** chirp confirmation continue holding the Override switch and press Transmitter Button 1.

--- or ---

For remote Arming *without* chirp confirmation *release the Override switch* and press Transmitter Button 1.

- The status LED will flash once quickly to confirm that the new Remote Transmitter has been added.
- 4. Turn off the ignition.
 - The siren will chirp 5 times.

Deleting Transmitters (Adding a Remote Transmitter and Erasing All Other Remote Transmitters From the System)

Code all memory locations to delete any lost transmitters. Example: if two transmitters are used, after coding the first transmitter, code the second transmitter three times to fill up the remaining memory locations.

Basic Features

Remote Arming

When Armed, the system monitors and protects 3 independent areas, or **zones**, including the doors, hood/trunk, and shock sensor.

To Arm the System:

- 1. Turn off the ignition.
- 2. Press Button 1.
 - The siren/horn will chirp once.*
 - · The doors will lock.
 - The parking lights will flash once.
 - The LED will turn on red, indicating the doors, hood and trunk inputs are activated.
- * The siren chirp(s) during Arming will alert you the condition of the system and vehicle when the system is armed.
 - 1 chirp = normal arming 1 + 4 chirps = door, hood, or trunk open

During Arming, if the system detects a bad sensor or an open zone, the system will ignore that input, but keep all other areas protected.

- 3. After 10 seconds:
 - · The LED will begin blinking, indicating that the sensor inputs are activated.

While the system is $\boldsymbol{Armed},$ the system will trigger if:

- · The doors are opened.
- The shock sensor detects an impact to the vehicle.
- The hood or trunk is opened.

When triggered, the siren will sound, and the parking lights will flash and the horn will honk (if connected). If the system is triggered by the doors, hood, or trunk, the system will alarm for 40 seconds. If triggered by a sensor, the system will alarm for 20 seconds.

If the same input triggers the system 3 times during a single arming cycle, the system will bypass that input keeping the other zones protected until the next time the system is armed.

If the shock sensor detects a light impact to the car, the siren will sound 5 chirps to warn away the potential intruder.

Remote Sensor Bypass

The system can be set up so that in case of extreme weather conditions such as high winds, the sensors can be temporarily bypassed from the Remote Transmitter while the system is armed to prevent the system from false alarming.

To Bypass the sensors:

- 1. After arming the system, press Button 1 again on the Remote Transmitter within 5
 - The siren will chirp 5 times, indicating the sensors have been bypassed.
- 2. The sensors will remain bypassed until the next time the system is armed.

Remote Disarming

To Disarm the System:

Press Button 2.

- The siren/horn will chirp twice.*
- · The doors will unlock.
- The parking lights will flash twice.**
- The LED will turn off.
- * The siren chirps and light flashes during disarming will alert you if the system had been triggered while armed.

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2 chirps / 2 flashes = normal disarming
3 chirps / 3 flashes = Tamper Alert - system was triggered
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Tamper Alert

On Disarming, if the system responds with three chirps, indicating the system was triggered, the LED will flash for 60 seconds to indicate the zone that triggered the system.

LED Flashes (60 seconds):

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1 flash = door
2 flashes = shock sensor
3 flashes = trunk
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example: flash-flash-pause-flash-flash-pause = shock sensor

Note: Turning on the ignition will cancel Tamper Alert zone indications.

Silent Arming / Disarming

Each Remote Transmitter can be individually set to always Arm and Disarm the system with or without chirp confirmation at the time they are programmed into the system (see **Adding a New Transmitter into the System**).

To temporarily cancel the Arming and Disarming confirmation chirps, you can Arm or Disarm the system by pressing Button 3.

Note: The confirmation chirps will only be cancelled if the system status is normal. The chirp indications for Tamper Alert and the open zone warning will not be cancelled when the system is Armed or Disarmed silently.

Arming Mode Selection

Your system can be set in one of the following Arming Modes:

- Passive (automatic) Arming with chirp confirmation
- Active Arming (by Remote Only)
- Passive (automatic) Arming without chirp confirmation

^{**} If the Passenger Unlock Feature is installed, pressing Button 2 will unlock only the driver's door. Pressing the unlock Button 2 again unlocks all doors.

To set the Arming Mode:

- 1. Turn the ignition on.
- 2. Within 4 seconds, press Button 3 to change the setting.

Passive Arming with chirp one chirp Active Arming three chirps Passive without chirp

3. Turn the ignition off to save your selection.

Passive Arming

When the Arming Mode has been set for Passive Arming, the system arms itself automatically, each time the ignition is turned off and all of the doors, hood and trunk are closed.

To start the Passive Arming Process:

- 1. Turn off the ignition.*
 - · The status LED will begin to flash quickly.
- 2. Open the door and exit the vehicle.
 - Once all doors are closed and the dome light is turned off, the LED will turn off.
- 3. After 20 seconds,
 - The siren will chirp (if Passive Arming with chirp is selected).
 - · The parking lights will flash.
 - The doors will lock.**
 - · The status LED will flash red, indicating the system is armed.
- 4. The system is now armed.
- * The ignition must have been on for at least 10 seconds before the Passive Arming sequence will begin.
 ** If the Passive Locking feature is selected.

To temporarily disable Passive Arming, you can turn the ignition key on then off within 10 seconds. The status LED will stop flashing, and the system will not passively arm until the next time the key is on for more than 10 seconds. This feature is useful for turning off passive arming when refueling or washing the car or if you want to sit in your car and do not want the system to arm.

Panic Mode

Allows you to instantly trigger the alarm in an emergency situation using the Remote Transmitter.

To enter Panic Mode:

- 1. Press and hold Button 1 for 3 seconds.
 - · The siren will sound.
 - · The doors will unlock.
- 2. Press Button 1 again to stop panic and place system into the Armed state.
- 3. Press Button 2 to stop panic and place system into the Disarmed state.

If Panic Mode is not stopped by the Remote, it will automatically time out after 40 seconds, and the system will return to its prior Armed/Disarmed state.

Emergency Override

In case your Remote Transmitter becomes inoperable, or it is lost or stolen, you can still enter and drive your car by using the following procedure. Be sure that you have your ignition keys ready and that you know the location of the Override switch before you perform this procedure.

To override the system:

- 1. Unlock the door using the key.
- 2. Enter the vehicle.
 - Because the system is armed, the system will trigger and the siren will be sounding.
- 3. Turn ignition key on.
- 4. Within 4 seconds, press and hold the Override switch.
 - The system will disarm.
- 5. You can now start and drive the car.

Note: During installation, your installer can program the system to give 10 second entry delay when the system Arms passively. When the door is opened while the system is Armed, the siren will give a series warning of chirps before sounding, giving you time to perform the emergency override procedure.

Automatic System Rearming

This feature, which can be turned on by your installer during the installation, insures the security of the system by protecting your car in case of an accidental disarm.

If your system becomes disarmed due to an accidental press of the Arm/Disarm Button, the system will automatically rearm if no other activity is detected within one minute.

One minute after Remote Disarming, the system will alert you with a series of chirps, then arm. (If the Passive Door Locking feature is selected during the installation, the system will also relock the doors.)

Any of the following will cancel Automatic System Rearming:

- Turn on the ignition.
- Open the Trunk or Hood.
- Activate Auxiliary Function.

Automatic System Rearming is independent of Passive Arming and only takes place if the system was Armed (actively or passively) for at least 10 seconds and then Disarmed by the Remote Transmitter.

Full Time System Diagnostics

The system continuously monitors all protected zones, even when it is not armed, and warns you if it detects a problem when you turn off the ignition.

- 1. Turn off the ignition.
- 2. If the siren chirps twice, the system has detected a problem.*
- 3. The status LED will flash to indicate the zone where the problem has been detected.

1 flash = door 2 flashes = shock sensor 3 flashes = hood / trunk

^{*} The system must see the zone open or active for at least 20 seconds before the zone is determined to be defective. This way, opening the car door before turning off the ignition will not cause the siren to emit the warning chirps.

Other Features

Valet Mode

Allows you to temporarily disable the security system when the car is being service or turned over to a parking attendant.

To turn Valet Mode on or off:

- 1. Turn on the ignition.
- 2. Press and hold the override switch.
- 3. While holding the override switch, turn off the ignition.
 - · The siren will chirp once to indicate you have turned Valet Mode on.
 - The siren will chirp twice to indicate you have turned Valet Mode off.
- 4. Release the override switch.

While Valet Mode is on, the LED will light solid and you can continue to lock and unlock your doors with the Remote Transmitters, as well as operate the Auxiliary Functions.

For added protection, when the doors are locked using the Remote Transmitter, the system's Starter Disable circuit will activate, and the LED will emit double flashes until the system is unlocked by the Remote.

If the Remote Transmitter is lost, stolen, or becomes inoperable while the car is locked in Valet Mode, you can exit the Valet mode to deactivate the Starter Disable circuit.

Ignition Controlled Door Locking

For added convenience and safety, this feature automatically locks your car's doors 10 seconds after the ignition key is turned on.

To prevent you from accidentally locking your keys inside the car:

- The system will not automatically lock the doors if a door is open when the ignition key is turned on.
- The system will not automatically lock the doors if a door is opened during the first 10 seconds after the ignition key is turned on.

Ignition Controlled Door Unlocking*

For added convenience, this feature automatically unlocks your car's doors after the ignition key is turned off

*For personal safety reasons, this feature can be turned off by your installer.

Dome Light Control

For increased safety and convenience this optional feature will automatically turn on the dome light when you Disarm the system.

With this feature installed, the dome light will turn on for 20 seconds when the system is disarmed (or unlocked in Valet Mode) using the Remote Transmitter.

Auxiliary Function Output

The system is equipped with an Auxiliary Function output that can be used to remotely control optional features such as, electric trunk release, remote car starter, power windows, power sunroof, etc.

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To operate the Auxiliary Function with the system **Disarmed**, press Button 3 for three seconds.

• This function will stay active for as long as Button 3 is held.

Trunk Disarm

If the Auxiliary Function is being used to remotely open your car's trunk, your installer can program the system to automatically disarm the alarm when the auxiliary function is pressed while the system is armed. This will allow you to load or retrieve packages from the trunk without having to first disarm the alarm.

Remote Car Starter

When an optional Remote Car Starter is installed, the Remote Transmitter can remotely start and run your vehicle to warm-up the engine, as well as activate the heating / air conditioning system.

Additional Remote Transmitters

Additional Remote Transmitters for your MS2000 are available from your Authorized Ungo dealer.

Status Indications

You can use this chart to quickly identify and interpret the MS2000's siren and LED indications.

Output	When	Status
1 chirp	arming	normal arming
1 + 4 chirps	arming	door, hood, or trunk is open
No chirps	arming	Valet Mode is on
LED double flashes	Valet Mode	Starter Defeat Activated
O. alaima	dia a service a	a consol disconsisso
2 chirps 3 chirps	disarming disarming	normal disarming Tamper Alert - system was triggered
3 chirps	disarming	Tamper Alert - system was triggered
1 LED flash	after Tamper Alert	door
2 LED flashes	after Tamper Alert	shock sensor
3 LED flashes	after Tamper Alert	hood or trunk
		A
5 chirps	while Armed	Warn Away
Multiple chirps	while Armed & Door Open	System Triggered
		(Passive Arming Entry Delay Warning)
4 chirps	with ignition key on	Sensor Test mode on
1 chirp	in Sensor Test mode	impact detected
Mulitple chirps	1 minute after disarming	Automatic Rearming
(for 10 seconds)		
LED fleeking middle	landidan bassaff	Basalias Associas associas at anta-d
LED flashing quickly	ignition key off	Passive Arming sequence started
Two chirps	ignition key off	Full Time System Diagnostics
1 LED flash	after Full Time Sys. Diag.	door
2 LED flashes	after Full Time Sys. Diag.	shock sensor
3 LED flashes	after Full Time Sys. Diag.	hood or trunk

Technical Data

Specifications

Main Unit

Voltage: 12v, negative ground
Current Consumption: <15mA
Temperature Range: -40°F to +257°F
Auxiliary Output Capability: 500mA
Internal Relays: (1) 30A, (1) 15A

Transmitter

Current Consumption: <.00mA, standby Battery Type: miniature 12v, type 23A

FCC ID: MP62ZUUNGO701-702 HP92VUUNGO7000-2

THIS DEVICE COMPLIES WITH FCC RULES PART 15.

OPERATION IS SUBJECT TO THE FOLLOWING TWO
CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL
INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY
INTERFERENCE THAT MAY BE RECEIVED, INCLUDING
INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Ungo Security Corporation Gardena, CA USA

	Warranty Information
Model No.:	MS2000
Serial No.: _	
Dealer Name	e:
Address:	
Purchase Da	ate:
(

Warranty Information

- Ungo Security Corporation of Gardena, California ("Ungo Security") warrants this Ungo system to be free from defects in materials and workmanship and to comply with Ungo Security's applicable printed specifications.
- 2. Ungo Security systems carry a limited lifetime warranty on the Main unit (system brain) and transmitters. The warranty is limited to Ungo Security systems that have been installed by an approved Ungo dealer and is extended to the Original Purchaser ("Owner") and to the original vehicle in which it was installed only, and is not transferable to any subsequent owner or owners of the product(s).

All other products (including those products of other manufacturers which are supplied by Ungo Security as a part of, or an accessory to, an Ungo Security-manufactured product) are warranted by Ungo Security for a period of one year from the date of sale to the Owner. For specific identification of such products contact Ungo Security.

- 3. This warranty shall not cover: (I) any damage caused by Owner's negligence or misuse of any kind, or any damage due to causes unrelated to Ungo Security's manufacturing, including, but not limited to improper servicing or repair by someone other than Ungo Security or an authorized service facility: (II) alterations or modifications to the Ungo system other than the addition of an authorized accessory: or (III) improper installation or removal from the vehicle contrary to Ungo Security's instructions.
- 4. Obligations of Ungo Security. In the event the Owner's Ungo system does not comply with this warranty, it must be returned to Ungo Security as specified below. Ungo Security will repair or replace it with a new, comparable, or reworked unit, within thirty (30) days of receipt and acceptance of such defective unit, and without cost to Owner.
- 5. To make a claim under the warranty. Owner must: (I) provide Ungo Security with written notice that the Ungo System does not comply with the warranty within thirty (30) days from the date of the Owner's discovery of the defect and (II) furnish proof of purchase and purchase date (this requirement is satisfied if Ungo Security has a completed warranty registration card on file).
- 6. Owner obligations. To obtain Warranty Service, Owner must at Owner's expense: (I) have the Ungo system removed from the vehicle by an authorized Ungo Security dealer, (II) package the unit in a reasonable manner to prevent damage to the unit during shipment; and (III) ship the unit, freight prepaid, to Ungo Security's factory or other authorized repair facility.
- Repair facility locations. To obtain the name, address and phone number of the nearest Authorized Ungo Repair Facility, Owners may contact Ungo Security at 310-327-9100.
- 8. The Owners of Ungo systems in California have the right to have the product serviced or repaired during the warranty period. The warranty period will be extended for the number of full days that the product has been out of the Owner's hands for

warranty repairs. If a defect exists within the warranty period, the warranty will not expire until the defect has been fixed. The warranty period will also be extended if the repair has not been performed due to delays caused by circumstances beyond the control of the Owner, or if the warranty repairs did not remedy the defect and the Owner notifies Ungo Security or the seller of the failure of the repairs within sixty (60) days after they were completed. If, after a reasonable number of attempts, the defect has not been fixed the Owner may return this product for replacement or a refund, subject in either case, to a deduction of a reasonable charge for usage. The time extension does not effect the protection or remedies the Owner has under other laws

- 9. Exclusions from liability.
- (A) In no event shall Ungo Security be liable for any loss or damages beyond the original purchase price of the Ungo system, and Ungo Security specifically excludes any and all incidental and consequential damages, whether resulting from breach of warranty or contract, negligence or other conduct in connection with any sale, use, servicing or repair of a unit. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.)
- (B) There are no warranties, express, statutory or implied, which extend beyond that which is described herein, and in particular, all implied warranties of merchantability and fitness for a particular purpose, and all warranties of title and against encumbrances, are expressly disclaimed, limited and excluded as permitted by law; but in no event shall any implied warranty, whether of merchantability of fitness for a particular purpose or otherwise, have a duration exceeding that of the express warranty made herein. (Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.)
- (C) No agent, officer, employee or representative of Ungo Security, or any other person, has authority to make any representations, promises or warranties respecting Ungo systems and their authorized accessories.
- (D) Owner has the right to bring any action at law or in equity to resolve disputes concerning, or to enforce, the provisions of this warranty. No action at law or in equity may be brought against Ungo Security for breach of warranty or contract or based on negligence of other conduct more than three (3) years from the date the cause of action has occurred.
- (E) This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
- (F) The remedies extended herein are the sole and exclusive remedies available to Owners of Ungo systems.
- (G) Under no circumstances should this warranty, or the products covered by it, be construed as an insurance policy against loss.

Ungo Security Corporation
A Clarion Company
661 West Redondo Beach Blvd.
Gardena, CA 90247
800-Go-Clarion www.clarion-usa.com

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